

023

**GeneCard for gene
CD44**

Approved HUGO gene nomenclature committee
symbol
**CD44 (CD44 antigen (homing function and
Indian blood group system))**

[[Back to GeneCards
Homepage](#)]

<p>Synonyms (according to GDB, HUGO, OMIM and/or SWISS-PROT)</p>	<ul style="list-style-type: none"> • CD44 antigen (homing function and Indian blood group system) • MIC4 • MC56 • MDU2 • IN • MDU3
<p>CD44 in other gene-based resources</p>	<p>GDB ID: 120739 LocusLink ID:960 euGene ID: HUgn960</p>
<p>Chromosomal location: (according to LocusLink or OMIM and/or UDB)</p>	<p><i>Chromosome: 11 LocusLink cytogenetic band: 11p13</i></p> <p><i>Unified DataBase coordinate (from pter): 43,599,314 ± 1,383,170 bases</i></p>
<p>Proteins: (according to SWISS-PROT, MIPS, and/or BLOCKS)</p>	<p>CD44_HUMAN: cd44 antigen precursor (phagocytic glycoprotein i) (pgp-1) (hutch-i)(extracellular matrix receptor-iii) (ecmr-iii) (gp90 lymphocytehoming/adhesion receptor) (hermes antigen) (hyaluronate receptor)(heparan sulfate proteoglycan) (epican) (cdw44). --gene: <i>cd44</i> or <i>lhr</i>. [742 amino acids; 81 kd]</p> <p>function: main cell surface receptor for hyaluronate. adhesion to mucosal high endothelial venule and to types i and vi collagen. probably involved in matrix adhesion, lymphocyte activation and lymph node homing.</p> <p>subcellular location: type i membrane protein.</p> <p>alternative products: many isoforms of cd44 are produced by alternative splicing of 10 out of 19 exons within the extracellular domain. additional diversity is generated through the utilization of internal splice donor and acceptor sites within 2 of the exons. a variation in the cytoplasmic domain was shown to result from the alternative splicing of 2 exons. the standard cd44 is expected to be expressed in normal cells; splice variants have been found in many tumor cell lines. the sequence shown here is that of the largest isoform.</p> <p>tissue specificity: an epithelial isoform (cd44e) is expressed by cells of epithelium and highly expressed by carcinomas. an hematopoietic isoform (cd44h) is expressed by cells of mesodermal origin. expression is repressed in neuroblastoma cells.</p> <p>ptm: extensively modified including n- and o-linked glycosylation, addition of the glycosaminoglycan chondroitin sulfate, of sulfate, of phosphate to cytoplasmic domain serine residues.</p> <p>polymorphism: cd44 is responsible for the indian blood group system. the molecular basis of the in(a)=in1/in(b)=in2 blood group antigens is a single variation in position 46; in(b), the most frequent allele, has pro-46 and has arg-46.</p> <p>similarity: contains 1 link domain.</p> <p>database: proow - cd guide cd44 entry.</p> <p>database: name=r&d systems' cytokine source book; www="http://www.rndsystems.com/cyt_cat/cd44.html".</p> <p>MIPS Pedant Viewer: 69773 69775 69774 69778 69772 69770 69777 69776</p>

	<div>69771</div> <div>Blocks protein families:</div> <div>BL01241 Link domain proteins.</div> <div>PR00658 CD44 antigen precursor signature</div>										
<div>Sequences</div> <div>(GenBank/EMBL/DDBJ accessions according to Unigene or GenBank, RefSeq according to LocusLink, assembly according to MIPS, DOTS and/or UCSC)</div>	<div>Unigene Cluster for CD44: (Build 129; Jan 9 2001) CD44 antigen (homing function and Indian blood group system) Hs.169610 [show with all ESTs]</div> <div>Unigene Representative Sequence: AJ251595</div> <div>REFSEQ mRNAs: NM_000610</div> <div>MIPS assembly: H55654S4 H55654S6 H55654S5 H55654S9 H55654S3 H55654S1 H55654S8 H55654S7 H55654S2</div> <div>DOTS assembly: DT.65287751 DT.87017109 DT.450200 DT.87017108 DT.87016134 DT.40113923 DT.120153</div> <div>UCSC draft assembly: AJ251595</div> <div>Additional Gene/cDNA sequence: AJ251595 AL133330 L05424 M24915 M25078 M59040 S66400 U40373 X55150 X56794 X66733</div>										
<div>Similar genes in other organisms:</div> <div>(according to MGD Jan 22 2001)</div>	<div>Mammalian homologues:</div> <table><thead><tr><th></th><th>gene</th><th>locus</th><th>description</th><th>Genbank accessions</th></tr></thead><tbody><tr><td>mouse</td><td>Cd44</td><td>2 (56.00 cM)</td><td>CD44 antigen</td><td>J05163 L13611 M27129 M27130 M30655 S51806 S51808 S51809 S51828 U57610 U57611 U57612 X66081 X66082 X66083 X66084 X69724</td></tr></tbody></table>		gene	locus	description	Genbank accessions	mouse	Cd44	2 (56.00 cM)	CD44 antigen	J05163 L13611 M27129 M27130 M30655 S51806 S51808 S51809 S51828 U57610 U57611 U57612 X66081 X66082 X66083 X66084 X69724
	gene	locus	description	Genbank accessions							
mouse	Cd44	2 (56.00 cM)	CD44 antigen	J05163 L13611 M27129 M27130 M30655 S51806 S51808 S51809 S51828 U57610 U57611 U57612 X66081 X66082 X66083 X66084 X69724							
<div>Disorders & Mutations</div> <div>(in which this gene is involved, according to OMIM, SWISS-PROT, Genatlas, HGMD, TGDB, and/or BCGD)</div>	--										
<div>Medical News</div> <div>(possibly related articles in Doctor's Guide)</div>	--										
<div>Research Articles:</div> <div>(in PubMed)</div>	<div><ul style="list-style-type: none">The Ina and Inb blood group antigens are located on a glycoprotein of 80,000 MW (the CDw44 glycoprotein) whose expression is influenced by the In(Lu) gene.</div> <div><div>Search PubMed for CD44</div>to find abstracts of research articles containing this gene name</div>										

**Additional Sources of
Information**
on the web

name

Genatlas biochemistry entry for CD44: cell differentiation antigen CD44 (Pgp-1),80-95kDa,identified by antibodies GRHL1,F10-44-2 (including MDU2,MDU3,MIC4 identified by monoclonal antibodies A1 G3,13D8,F10.44),lymphocyte homing receptor,involved in extracellular matrix adhesion and in myeloid differentiation,expressed in small lymphocytic and mantle cell lymphoma,on leukemic blasts from most AML patients,and in invasive basal cell carcinomas

[Search RZPD for clones of CD44](#)

Search the web for CD44

description

Links to **sequences**,
linkage data, **maps**, and
papers

Clone collection at the
German Human Genome
Project, Resource Center

search millions of **Web
pages** with **Excite** to find
articles, personal
homepages, conferences,
discussions, and other
web sites related to
CD44!

[Back \(to Search Results\)](#)

- [Feedback Form](#) - [More like this](#)

[GeneCards Homepage](#) - How to [Search](#) or [Cite](#) this Database - Last **Update**: 26 Jan 2001

Search GeneCards for

Do the search!

The GeneCards **idea** in brief: [Mining the Internet](#) for biomedical knowledge and [guiding the user](#) to it.